

**U.S. Environmental Protection Agency  
Science Advisory Board  
Supplemental Guidance for Assessing Cancer  
Susceptibility (SGACS) Proposed Review Panel**

**Biosketches of Proposed Candidates for the SGACS Review Panel.**

**Dr. Henry Anderson**, Chief Medical Officer, Division of Public Health, Wisconsin Division of Public Health, Madison, WI, Proposed Chair of the SGACS Review Panel and Current Chair of the SAB's Environmental Health Committee      Also Member: Executive Committee

In 1980 Dr. Anderson joined the Wisconsin Department of Health and Social Services as the State Environmental and Occupational Disease Epidemiologist. In 1991 he also assumed the duties of Chief Medical Officer. Among his duties for the State of Wisconsin has been the development of the scientific support documents for Wisconsin's Groundwater Enforcement Standards.

He received his MD degree in 1972 and entered an Internal Medicine internship and then an occupational medicine residency. He was certified in 1977 by the American Board of Preventive Medicine with a sub-specialty in occupational and environmental medicine and in 1983 became a fellow of the American College of Epidemiology. He holds adjunct Professorships at the University of Wisconsin - Madison, Department of Preventive Medicine and the University of Wisconsin Institute for Environmental Studies, Center for Human Studies. He has published over 160 scientific articles on a broad spectrum of environmental, occupational and public health topics. He is principal investigator on nine active grants and cooperative agreements from federal government agencies including the U.S. EPA.

His USEPA funded research grants address children's health issues such as reproductive and endocrine function of frequent Great Lakes sport fish consumers and evaluation of women's awareness of mercury toxicity and sport fish consumption advisories. Other current research includes, childhood asthma, lead poisoning, arsenic in drinking water, youth occupational health, occupational fatalities and bioterrorism response. His expertise includes public health, preventive, environmental and occupational medicine, respiratory diseases, epidemiology, human health risk assessment and risk communication.

He was a founding member of the Agency for Toxic Substances and Disease Registry (ATSDR) Board of Scientific Councilors (1988-1992). He served on National Academy of Sciences/Institute of Medicine (NAS/IOM) committees that developed the reports "Injury in America" and "Nursing, Health & Environment." He was a member of the Armed Forces Epidemiology Board. He is current chair of the Environmental Health Committee of the USEPA Science Advisory Board and past chair of the SAB Integrated Human Exposures Committee. He serves on the USEPA SAB Executive Committee. He serves on several other FACA committees including the Director's Advisory Board for the National Center for Environmental Health, Centers for Disease Control and Prevention, the Hanford Health Effects Subcommittee for ATSDR and is a member of the NIOSH Advisory Board on Radiation and Worker Health. He is a fellow of the Collegium Ramazzini and the American Association for the Advancement of Science. He is associate editor of the *American Journal of Industrial Medicine* and serves on the editorial board of *Cancer Prevention International*.

## **SAB MEMBERS**

**Dr. Dale Hattis**, Research Professor, Center for Technology, Environment, and Development, Marsh Institute, Clark University, Worcester, MA

Dr. Hattis is Research Professor with the Center for Technology Environment and Development (CENTED) of the George Perkins Marsh Institute at Clark University. For the past twenty-seven years he has been engaged in the development and application of methodology to assess the health ecological and economic impacts of regulatory actions. His work has focused on the development of methodology to incorporate interindividual variability data and quantitative mechanistic information into risk assessments for both cancer and non-cancer endpoints. Specific studies have included quantitative risk assessments for hearing disability in relation to noise exposure renal effects of cadmium reproductive effects of ethoxyethanol neurological effects of methyl mercury and acrylamide and chronic lung function impairment from coal dust four pharmacokinetic based risk assessments for carcinogens (for perchloroethylene ethylene oxide butadiene and diesel particulates) an analysis of uncertainties in pharmacokinetic modeling for perchloroethylene and an analysis of differences among species in processes related to carcinogenesis.

He has recently been appointed as a member of the Environmental Health Committee of the EPA Science Advisory Board and for several years he has served as a member of the Food Quality Protection Act Science Review Board. Currently he is also serving as a member of the National Research Council Committee on Estimating the Health-Risk-Reduction Benefits of Proposed Air Pollution Regulations. The primary source of his recent grant and contract support is the U.S. Environmental Protection Agency. He has been a councilor and is a Fellow of the Society for Risk Analysis and serves on the editorial board of its journal Risk Analysis. He holds a Ph.D. in Genetics from Stanford University and a B.A. in biochemistry from the University of California at Berkeley.

**Dr. David Hoel**, Distinguished University Professor, Department of Biometry and Epidemiology, Medical University of South Carolina, Charleston, SC

Dr. Hoel is a Distinguished University Professor at the Medical University of South Carolina. He received his A.B. degree in Mathematics and Statistics from the University of California at Berkeley and his Ph.D. from the University of North Carolina at Chapel Hill and has more than 25 years of experience as a biostatistician, toxicologist and environmental health researcher.

Dr. Hoel's research specialties include: environmental causes of cancer, risk assessment models; statistical and mathematical applications in biology and medicine; epidemiology; and radiation health effects. Dr. Hoel is widely published, having authored or co-authored over 160 journal articles and co-editor of several books and journals. He serves on a variety of national association committees and panels, such as a member of the Institute of Medicine, Agent Orange Committees, EPA's Science Advisory Board.

He is a member of the National Academy of Sciences Institute of Medicine, is a National Associate of the National Academy of Sciences and National Research Council and a Fellow for the American Association for the Advancement of Science. Before joining the faculty at the Medical University Dr. Hoel was a division director at the NIEHS of NIH. This division was

made up of four branches with responsibility for the Institute's program in biostatistics, epidemiology and molecular toxicological risk assessment.

Sources of recent grant and/or contract support: include: (1) Savannah River Site Former Production Workers Medical Surveillance Program – Phase II Year Continuation (funded by the Department of Energy)--the goal of this project is to assess occupational exposures reviewed by former DOE workers at SRS and conduct appropriate medical examinations in order to evaluate work related illness and risk.; (2) "Low Dose Radiation Project" (funded by the Department of Energy, Environmental Biosciences Program); the goal of this project is to develop methods for estimating cancer risks from low dose and low dose rate ionizing radiation; (3). "Radiation Leukemogenesis: Applying Basic Science to Epidemiology Estimates of Low Dose Risks and Dose-Rate Effects"(funded by the Department of Energy)--the goal of this project is to incorporate biological information into mathematical models of radiation induced leukemias; and (4) "Radiation Risk Analysis: Model Issues and Interspecies Extrapolation"(funded by the National Opinion Research Center/NASA)--the goal of this project is to use and evaluate experimental animal data for estimation of human health risks from radiation.

**Dr. Richard W. Hornung**, Director, Division of Biostatistical Research, IHPHSR, University of Cincinnati, PO Box 670840, Cincinnati, OH, 45267-0840

Dr. Hornung is a member of the RAC since FY 2001. He currently heads the Statistical Working Group of the Multi-Agency Radiological Laboratory Analytical Protocols (MARLAP) Review Panel. He served as a consultant to the RAC (March, 1999), and participated in the SAB's advisory on Radon Risk. He is currently a Senior Research Associate and Director of the Division of Biostatistical Research and Support in the Institute for Health Policy and Health Services Research at the University of Cincinnati Medical Center in Cincinnati, Ohio. He has served since 1996 as a member of the White House Committee on Revisions to the Radiation Exposure Compensation Act. Since 1990, he has served as an advisor on the National Research Council. He received numerous awards, including the U.S. Public Health Service award for "Sustained High Level Performance in the Field of Biostatistics." He was a consultant to the National Academy of Science Committee on the Biological Effects of Ionizing Radiation (BEIR IV). He is a reviewer for a dozen scientific journals. His peer-reviewed publications deal with exposure assessment methods, lung cancer risk in Uranium miners, dose assessments, dose reconstruction, development of models for use in estimating exposures to a number of pollutants, including diesel exhaust, benzene, ethylene oxide, lung cancer in shipyard workers and other related topics. Dr. Hornung has a B.S. in Mathematics from the University of Dayton, an M.S. in Statistics from the University of Kentucky, and a Ph.D. in Biostatistics from the University of North Carolina. The primary sources of his research funding are NIH and CDC.

**Dr. James E. Klaunig**, Professor and Director, Department of Pharmacology and Toxicology, School of Medicine, Indiana University, Indianapolis, IN

Dr. Klaunig is Professor of Toxicology and Director of Toxicology in the Department of Pharmacology and Toxicology at Indiana University School of Medicine. He also serves as the Director of the Department of Toxicology for the State of Indiana. He received his BS degree from Ursinus College in Collegeville Pa., an MA from Montclair State University, Montclair, NJ, and his PhD from the University of Maryland in Baltimore, MD. He is the recipient of numerous awards including fellow of the Academy of Toxicological Sciences, the Otis R. Bowen, M.D. Distinguished Leadership Award, Indiana University School of Medicine and the

Kenneth P. DuBois Award, and Midwest Society of Toxicology. He serves on several toxicology and pathology editorial boards including as associate editor of Toxicological Sciences. Since January 2000 he has been a Member, NIH National Toxicology Program Board of Scientific Counselors. He also has served as president of the carcinogenesis specialty section, president of the Ohio valley Society of Toxicology chair of the education committee, and finance committee member of the society of toxicology. He is currently the Treasurer- elect of the Society of Toxicology. He also serves the State of Indiana on the Indiana Pesticide review Board, the Governor's Council on Impaired and dangerous driving and on the Indiana Controlled substances Advisory Board. He has trained over 50 graduate students and postdoctoral fellows. His research interests are dedicated to understanding the mechanisms of chemically induced carcinogenesis specifically the mode of action of nongenotoxic carcinogens, role of oxidative stress in carcinogenesis and cell injury, and understanding of the multistage nature of the cancer process. . His current research support includes the following grants: Xenobiotic Modulation of Hepatic Gene Expression by Oxidative Stress (NIEHS,); Potential Mechanisms for Rodent Liver Toxicity by 2-Butoxyethanol (American Chemistry Council); Studies on the Mechanisms of 1,3-Dichloropropene Induced Rodent Hepatic and Pulmonary Toxicity (Dow Chemical Co); Chemical Testing for Intoxication (State of Indiana); Forensic Toxicology Instrument Upgrade for Indiana (NHTSA/State of Indiana); Law Enforcement Drug and Alcohol Detection Training (State of Indiana). His funding sources include NIEHS, NHTSA, Dow Chemicals Co., State of Indiana, and American Chemistry Council.

**Dr. Ulrike Luderer**, Assistant Professor , Department of Medicine, Center for Occupational and Environmental Health, University of California at Irvine, Irvine, CA

Dr. Luderer is Assistant Professor of Medicine in the Division of Occupational and Environmental Medicine at the University of California at Irvine. She also holds joint appointments in the Departments of Developmental and Cell Biology and Environmental Toxicology. Dr. Luderer's research focuses on mechanisms of action of reproductive toxicants and on protective mechanisms against those toxicants. She is a recipient of a National Institute of Environmental Health Sciences research grant (2002-2007) entitled "Glutathione: Protecting Ovarian Follicles from Oxidant Injury" and a co-investigator on an EPA grant "Latent Effects of Gestational Exposure to Heptachlor". She has published peer-reviewed journal articles and book chapters and presented research at national and international scientific conferences on such topics as the effects of solvent exposure on reproductive endocrine function, the functions of and regulation of glutathione in the ovary, the differential regulation of follicle-stimulating hormone and luteinizing hormone secretion, and reviews of reproductive and developmental and endocrine toxicology. She has served on the National Toxicology Program/NIEHS Center for the Evaluation of Risks to Human Reproduction Expert Panel on 1- and 2-Bromopropane and on the National Research Council subcommittee on methyl bromide. She is currently a member of the EPA SAB's Environmental Health Committee.

Dr. Luderer has a Ph.D. in reproductive endocrinology and M.D. from Northwestern University and is board-certified in Internal Medicine and in Occupational and Environmental Medicine. She has a Sc.B. in biomedical engineering from Brown University.

**Dr. Anne Sweeney**, Associate Professor , Department of Epidemiology/Biostatistics, Health Science Center, School of Rural Public Health, Texas A&M University, Bryan, TX

Dr. Sweeney is an Associate Professor of Epidemiology at the Texas A&M University

School of Rural Public Health in Bryan, Texas. She received a B.S. degree in Nutrition and Dietetics in 1975 from Marywood College. She earned both her MPH and Ph.D. degrees in Epidemiology from the University of Pittsburgh Graduate School of Public Health in 1988 and 1991, respectively. Dr. Sweeney is currently serving as a member of the Institute of Medicine's Gulf War and Health Study Committee, on the expert panel assessing the health effects of pesticides. She is also a member of the Fertility and Early Pregnancy Committee, assigned to the National Longitudinal Cohort Study Planning Committee, sponsored by the National Institute of Child Health and Human Development, the National Institute for Environmental Health Sciences, the Centers for Disease Control and Prevention, and the U.S. EPA. Her research interests include environmental and occupational exposures to toxic agents and the relation to adverse reproductive effects, particularly infertility, early pregnancy loss, and congenital anomalies. Dr. Sweeney has had extensive experience conducting large population-based studies of cohorts exposed to endocrine active compounds, including PCBs, PBBs, dioxin, and phthalates, and their effects on pregnancy outcome.

**Dr. Richard J. Vetter**, Head, Radiation Safety Program, Mayo Medical School, Mayo Clinic, 200 1st Street, S.W., Rochester, MN, 55905

Dr. Vetter is Head of the Section of Safety and Radiation Safety Officer for the Mayo Foundation and Professor of Biophysics of the Mayo Medical School in Rochester, Minnesota. His major areas of interest include biological effects and dosimetry of ionizing and nonionizing radiation, and public policy of radiation applications.

Dr. Vetter is certified by the American Board of Health Physics and the American Board of Medical Physics. He is Former Health Physics Society President and Journal Editor, and has served as Editor-in-Chief of the Health Physics Journal, as well as on the Board of Directors of the Health Physics Society. He is a member of the NCRP, the Radiological Society of North America, the Society of Nuclear Medicine, the American Academy of Health Physics, and the International Conference on Incineration. He has served in numerous capacities on the Mayo Clinic and Foundation Activities, such as the Ad Hoc Committee on Low Level Radioactive Waste, the Radiation Safety Committee, the Mayo Foundation Radiation Safety Committee, and the Foundation Environmental Health and Safety Committee. He has also participated in a number of professional activities at the state level, such as the Minnesota User's Group on Low Level Radioactive Waste Management. He is or has been a reviewer for the American Council on Science and Health, the Health Physics Journal, Radiation Research and numerous other publications. He is author or co-author of more than 180 publications in the health physics area. He received his B.S. and M.S. in Health Physics from Dakota State University in Brookings, SD and his Ph.D. in Health Physics from Purdue University in West Lafayette, IN.

## **CHPAC MEMBERS**

**Dr. Daniel A. Goldstein**, M.D., Director, Medical Toxicology, Monsanto Company, St. Louis, MO 63167

Dr. Goldstein joined the Medical Department of the Monsanto Company in 1998 as a Medical Toxicologist. Since 2000, he has served as Director, Medical Toxicology, and Global Regulatory Affairs. In 2002 he was appointed as a Monsanto Senior Science Fellow.

He received his Undergraduate Degree in Molecular Biology from the University of

Wisconsin in 1976 and his MD degree from Johns Hopkins in 1981, followed by a residency in Pediatrics at Johns Hopkins and a fellowship in Clinical Pharmacology and Medical Toxicology at the University of Toronto. He is certified by the American Board of Pediatrics, the American Board of Medical Toxicology, the American Board of Clinical Pharmacology, and by the Royal College of Physicians of Canada (Pediatrics). He is a fellow of the American Academy of Pediatrics and the American College of Medical Toxicology.

Following his training, and prior to his employment at Monsanto, Dr. Goldstein spent over 10 years in private practice in the Denver area, providing local and national consultation in the area of Clinical Toxicology (including critical care), Occupational Toxicology, Environmental Toxicology and Forensic Toxicology. During this time he also served as Director, Division of Toxicology, Department of Internal Medicine, Swedish Medical Center; as Adjunct Professor of Environmental Sciences and Engineering Ecology at the Colorado School of Mines, where he instructed in undergraduate and graduate Environmental Toxicology; as member and chair of the scientific advisory panel to the Colorado Air Quality Commission; and as Associate Clinical Professor of Pediatrics at the University of Colorado Health Sciences Center.

Since 2001 Dr. Goldstein has served first as an alternate and then as a member of the US EPA Office of Child Health Protection's Child Health Federal Advisory Committee, and he currently serves as co-chair of that committee's Science and Regulatory Working Group.

**Dr. Melanie Marty**, Ph.D., CA/EPA Office of Environmental Health Hazard Assessment, Chief, Air Toxicology and Epidemiology Section, Oakland, CA 94612

Dr. Marty received her Ph.D. from the University of California, Davis in March 1983 in Pharmacology and Toxicology. Currently, as a Section Chief, she functions as the Office of Environmental Health Hazard Assessment's Lead for risk assessment in the Criteria Air Pollutant program, Air Toxics Hot Spots program and the Toxic Air Contaminant program in Cal/EPA. This responsibility also includes acting as Departmental Lead on children's environmental health issues. Her duties include evaluating public health impacts of air contaminants, and supervising the conduct of epidemiological investigations of health effects of criteria air pollutants. She is responsible for the scientific documents, which are developed relating to health impacts from air pollution, and serve as the basis for regulation in the state of California. She is also responsible for developing long-term strategies to address key risk assessment issues such as those related to children's environmental health; use of mechanistic data in risk assessment of both carcinogens and noncarcinogens; evaluation and refinement of use of uncertainty factors in noncancer risk assessment; evaluation of risk assessment of complex mixtures; incorporating new data into setting ambient air quality standards. She has presented a large number of seminars and invited lectures on a wide variety of topics, mostly related to health effects of airborne toxicants. She has also authored/ co-authored numerous articles and publications relating to environmental risk assessment, including evaluation of children's health risks and cancer risk assessment.

## **SAP MEMBERS**

**Dr. Stuart Handwerger**, M.D., Director, Division of Endocrinology, Cincinnati Children's Hospital Medical Center, University of Cincinnati, Cincinnati, OH 45229

Dr. Handwerger is the Robert and Mary Shoemaker Professor of Pediatrics and Director of Endocrinology at the University of Cincinnati/Cincinnati Children's Hospital Medical Center. He is also Professor of Cell Biology, Neurobiology and Anatomy, Director of Postgraduate Medical Education at Children's Hospital and a member of the Comprehensive Cancer Center at the University of Cincinnati. He received his BA from the Johns Hopkins University in 1960 and his M.D. from the University of Maryland School of Medicine in 1964. He completed his house staff training in pediatrics at the Bronx Municipal Hospital Center and the Mt. Sinai Hospital in New York City. After spending two years as a Clinical Associate at the National Institutes of Health, he completed fellowship training in endocrinology at the Boston Children's Hospital and the Beth Israel Hospital in Boston. He then spent nineteen years on the faculty at Duke University School of Medicine where he was Professor of Pediatrics and Physiology and Director of the Division of Pediatric Endocrinology. He assumed her current positions in Cincinnati in 1990. Dr. Handwerger's major research interest is in the area of fetal and perinatal endocrinology, with particular emphasis on the hormonal regulation of fetal growth and development. He has an active NIH-funded research program to examine the genetic programs involved in human trophoblast differentiation and human uterine decidualization. He is also the Program Director of a NIH-funded training grant in developmental and perinatal endocrinology. Dr. Handwerger has served previously on NIH study sections and was a member of the National Advisory Council of the National Institute of Child Health and Development. He serves on the editorial board of several journals in endocrinology; and he is a member of many scientific societies, including The Society for Pediatric Research, The American Pediatric Society, The American Society for Clinical Investigation, The American Association of Physicians, The Endocrine Society and The Lawson Wilkins Pediatric Endocrine Society.

**Dr. Steven G. Heeringa**, Ph.D., Director, Statistical Design and Analysis, Institute for Social Research, University of Michigan, Ann Arbor, MI 48016-1248

Dr. Heeringa is a Research Scientist and the Director of the Statistical Design Group at the University of Michigan Institute for Social Research (ISR) where he oversees statistical design and for population-based studies in the social sciences, education, demography, public health and medicine. Steve has a Ph.D. in Biostatistics from the University of Michigan and is a specialist in statistical design and analysis for studies of human and animal populations. Steve Heeringa has over twenty-five years of statistical sampling experience directing the development of the ISR National Sample design as well as sample designs for ISR's major longitudinal and cross-sectional survey programs. During this period he has been actively involved in research and publication on statistical methods and procedures such as weighting, variance estimation and the imputation of missing data that are required in the analysis of sample survey data. He is an advisor to panels of the National Institutes of Health (NIH) and the World Health Organization (WHO). Since 2000, Steve has served as an ad hoc member of more than 10 EPA Scientific Review panels. He has been a teacher of survey sampling methods to U.S. and international students and has served as a sample design consultant to a wide variety of international research programs based in countries such as: Russia, the Ukraine, Uzbekistan, Kazakhstan, India, Nepal, China, Iran, Chile and Egypt. The majority of his research is supported through NIH funding.

**Dr. Christopher J. Portier**, Ph.D., Director, Environmental Toxicology Program, National Institute of Environmental Health Sciences, Research Triangle Park, NC 27709-12233

Dr. Portier is director of the Environmental Toxicology Program and Chief of the Laboratory of Computational Biology and Risk Analysis (LCBRA) since 1993 at the National Institute of Environmental Health Sciences. He received his Ph.D. (1981) and M.S. (1979) degrees in Biostatistics from the University of North Carolina, Chapel Hill. His research interests include: toxicology survival analysis, cancer modeling, environmental risk assessment, computer science, toxicokinetics, theoretical biology, statistical analysis, mechanistic modeling, and gene expression. He has authored more than 100 peer-reviewed publications and 50 book chapters, reports and agency publications in statistics, risk assessment and cancer research. He is currently a permanent member (Chair on occasion) of the EPA FIFRA Science Advisory Panel; scientific coordinator for the International Agency for Research on Cancer (IARC) courses in quantitative risk assessment; a frequent guest researcher at the German Cancer Research Center; a doctoral thesis advisor at the University of North Carolina at Chapel Hill and University of Waterloo; an associate editor for Risk Analysis, Environmental Health Perspectives and Statistical Methods in Medical Research; a member of several national and international committees dealing with risk assessment issues; and a member of the WHO Research Coordination Committee on Electric and Magnetic Fields. He is also the recipient of numerous awards including: the first recipient of the James E. Grizzle Distinguished Alumnus Award, The Department of Biostatistics, The University of North Carolina, 1991; Spiegelman Award, most outstanding public health statistician under the age of 40, American Public Health Association, 1995; Distinguished Achievement Award, Section on Statistics and the Environment, American Statistical Association, 1995; Board of Publications, Best Paper Award, Society of Toxicology, 1995; Merit Award, National Institutes of Health, 1998.

#### **SCIENCE ADVISORY BOARD STAFF**

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